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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/036,335	12/26/2001	Pierangelo Magni	00AG11453325	3308
27975	7590	02/24/2004	EXAMINER	
ALLEN, DYER, DOPPELT, MILBRATH & GILCHRIST P.A. 1401 CITRUS CENTER 255 SOUTH ORANGE AVENUE P.O. BOX 3791 ORLANDO, FL 32802-3791			ORTIZ, ANGELA Y	
			ART UNIT	PAPER NUMBER
			1732	

DATE MAILED: 02/24/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/036,335

Applicant(s)

MAGNI ET AL.

Examiner

Angela Ortiz

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 December 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 8-25 is/are pending in the application.
- 4a) Of the above claim(s) 19-25 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 8,9,11-14 and 16-18 is/are rejected.
- 7) ☒ Claim(s) 10,15 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 29 April 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date Feb 4 '02.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Election/Restrictions

Applicant's election with traverse of claims 8-18 in Paper dated 03 November 2003 is acknowledged. The traversal is on the ground(s) that search and examination of both groups can be done without serious burden. This is not found persuasive because the search for the process is not required for the mold claims.

The requirement is still deemed proper and is therefore made FINAL.

Priority

Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Drawings

The drawings were received on 29 April 2002. These drawings are approved.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

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Claims 8, 12 and 13 are rejected under 35 U.S.C. 102(b) as being anticipated by EP 813 236 (of record).

The cited reference teaches the claimed method including encapsulating an integrated circuit comprising the steps providing a mold having an upper half and a lower half wherein the upper half further comprises an extending insert part. The method includes positioning the upper half over the circuit and the insert part in pressing contact with the top portion of the integrated circuit, and injecting resin to encapsulate the device, leaving a hole or opening on the top of the device where the insert part contacted the device. The bottom of the insert part is made of a resilient material that is heat resistant and deformable. The bottom of the insert may be ring-shaped, connected to column 22a, and can have an end. See col. 3, lines 30-59; col. 4, lines 1-27.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation

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under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 9, 11, 14, 16-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over EP 813 236 (of record) in view of Salatino et al., USP 6,667,439.

The cited primary reference substantially teaches the basic claimed method of encapsulating an integrated circuit comprising the steps providing a mold having an upper half and a lower half wherein the upper half further comprises an extending insert part. The method includes positioning the upper half over the circuit and the insert part in pressing contact with the top portion of the integrated circuit, and injecting resin to encapsulate the device, leaving a hole or opening on the top of the device where the insert part contacted the device. The bottom of the insert part is made of a resilient material that is heat resistant and deformable. See col. 3, lines 29-59; col. 4, lines 1-27.

The cited primary reference does not teach supplying pressure to the insert as recited in claims 9 and 14, although it is deemed inherent in the reference that some pressure is applied to maintain contact with the circuit during molding, when forming the resulting opening.

The added secondary reference teaches as conventional the feature of encapsulating an integrated circuit comprising the steps of providing a mold having upper and lower portions, wherein the upper carries a mold protrusion having peripheral

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contact edges for engaging the top surface of an integrated circuit. Upon closing of the dies, pressure is applied to the protrusion and to the circuit so that the contact edges prevent resin from seeping into the area wherein the molded opening is formed. See col. 4, line 57 to col. 5, line 8; col. 5, lines 10-50; col. 5, line 61 to col. 6, line 20.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to supply pressure to the extending insert, in view of the added reference, when performing the process set forth in the primary reference, to maintain pressing contact against the circuit and prevent resin bleeding.

With respect to claims 11 and 16, note that the primary reference shows the upper mold with an opening that receives the insert; note that a recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim. In a claim drawn to a process of making, the intended use must result in a manipulative difference as compared to the prior art. See *In re Casey*, 152 USPQ 235 (CCPA 1967) and *In re Otto*, 136 USPQ 458, 459 (CCPA 1963).

With respect to claim 17, note that the top surface of the integrated circuit as referred in the above rejection, is readable on the claimed border portion.

With respect to claim 18, note the configuration of member 70 in the added reference; see figures 4-6.

Allowable Subject Matter

Claims 10 and 15 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. USP's 5424249; 5622873; 5773322; 5862248; 5929517; 5997798; 6000924; 6164946; 6193493; WO 94/16544.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Angela Ortiz whose telephone number is 571-272-1206. The examiner can normally be reached on Monday-Thursday 9:00-6:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Colaianni can be reached on 571-272-1196. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Angela Ortiz
Primary Examiner
Art Unit 1732

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